

ABSTRACT

Disclosed are an optical fuse and a device for fabricating such an optical fuse. The optical fuse comprises a medium constituting a structure in which a light-emitting end of a first optical waveguide is coupled to a light-incident end of a second optical waveguide across the medium, and a light-absorbing body adapted to absorb the light. The medium is transparent to light passing through the structure, and the light-absorbing body is disposed in contact with an outer peripheral surface of the medium in such a manner as to allow a part of light emitted from the light-emitting end into the medium to reach the light-absorbing body. The optical-fuse fabricating device comprises a pair of first and second support members formed, respectively, with first and second through-holes for supporting an optical fiber, and a beam member mechanically connecting the first and second support member together. When the first and second support members are arranged such that respective axes of the first and second through-holes are aligned in a straight line to allow a single common optical fiber to be inserted into both the first and second through-holes, a spacial gap is formed between the single common optical fiber and the beam. The present invention can provide an optical fuse having a low insertion loss and allowing an optical coupling to be eliminated in response to an irreversible change induced therein, and a device capable of allowing such an optical fuse to be fabricated in a simple and easy way.